APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 31-Oct-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Alaska District, POA-2008-01413-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State :	AK - Alaska
County/parish/borough:	Juneau
City:	Juneau
Lat:	58.384
Long:	-134.563
Universal Transverse Mercator	Folder UTM List *UTM list determined by folder location* ▸ NAD83 / UTM zone 40S Waters UTM List *UTM list determined by waters location* ▸ NAD83 / UTM zone 40S
Name of nearest waterbody:	Jordan Creek
Name of nearest Traditional Navigable Water (TNW):	Gastineau Channel
Name of watershed or Hydrologic Unit Code (HUC):	

☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc¿) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

☐ Office Determination Date: 29-Oct-2008

☐ Field Determination Date(s): ☐

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
a. Indicate presence of waters of U.S. in review area:[1]

Water Name	Water Type(s) Present
POA-2008-1413, Jordan Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: .08 (m²)
Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: Established by OHWM.
OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:[3]

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: [ ]
Drainage area: [ ]
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics
(a) Relationship with TNW:

☐ Tributary flows directly into TNW.
☐ Tributary flows through [ ] tributaries before entering TNW.
:Number of tributaries

Project waters are [ ] river miles from TNW.
Project waters are [ ] river miles from RPW.
Project Waters are [ ] aerial (straight) miles from TNW.
Project waters are [ ] aerial(straight) miles from RPW.

☐
Project waters cross or serve as state boundaries.
Explain:
Identify flow route to TNW:[5]

Tributary Stream Order, if known:

Order	Tributary Name
2	POA-2008-1413, Jordan Creek

(b) General Tributary Characteristics:
Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
POA-2008-1413, Jordan Creek	X	-	-	-	-

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
POA-2008-1413, Jordan Creek	22	2	3:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
POA-2008-1413, Jordan Creek	X	X	-	-	X	X	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
POA-2008-1413, Jordan Creek	Hill-slope precesses combined with steep gradient along the tributary contribute large volumes of sediment to the reviewed site. Sediment transport to Jordan Creek is facilitated by a combination of steep upland slopes and high gradient stream channel. As the tributary flows from the high gradient mountain channel onto a lower gradient alluvial fan and enters the low gradient Jordan Creek, it deposits sediment. Approximately 1,200-ft. of the lower end of this tributary is an alluvial fan created by this deposition. The alluvial fan has encroached into Jordan Creek, causing 2 to 2.5 feet of steam bed aggradation and has pushed Jordan Creek against its west bank. As a result of its low gradient, Jordan Creek has the tendency to retain sediment transported by higher gradient tributaries.	The entire Jordan Creek system consists of riffles and pools. However, the riffles and pools at the reviewed site have been adversely impacted or elimentated by the high level of sedimentation and subsequent aggradation that has occurred.	Meandering	.002

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
			Stream discharge data have been collected continuously since May 1997 at the USGS stream-gaging station, Jordan Creek below Egan Drive (site 6). Prior to October 1996, discharge data for this site were collected on an irregular basis at the site Jordan Creek at Trout Street Bridge, which was about 500 ft downstream but at a different datum. The gaging station (site	

POA-2008-1413, Jordan Creek	Perennial flow	20 (or greater)	6) drains an area of about 2.6 square mi. A mean annual discharge of 7.76 ft3/s was calculated for water years (ending September 30) 1998-2002 (U.S. Geological Survey). The highest flows are typically in the fall in response to frequent storms. However, the maximum discharge recorded at the stream gaging station was 149 ft3/s on December 28, 1999. This peak flow was the result of a warm and wet storm that struck the Juneau area on December 27-28, 1999. The storm dropped 2.95 inches of rain at the Juneau International Airport (U.S. National Oceanic and Atmosphere Administration, 1999) and resulted in minor flooding along Jordan Creek below Egan Drive. The relatively stable higher flows of the fall are in sharp contrast with the low flows of winter and early spring during which Jordan Creek periodically dewaters in the reach near the gaging station. Flow duration curves show the average percentage of time that specific daily flows are equaled or exceeded at sites where continuous records of daily flow are available, and can be used to determine the frequency at which critical flow thresholds are breached. Jordan Creek streamflow is equal to or less than 1 ft3/s approximately 10 percent of the time and flow is less than 0.1 ft3/s more than 1 percent of the time. Streamflow records after May of 1997 show two periods of channel dewatering, or zero flow, at the gaging station: the first is from March 3 through March 9, 1999 and the second is from April 8 through April 18, 2002. Streamflow measurements made on March 10, 2000 indicate that the stream channel downstream of Egan Drive may dewater when flows at the gage fall below 0.6 ft3/s. Flows equal to or less than 0.6 ft3/s have been recorded at the Egan Drive gaging station on 100 days during the period of record. Zero flow has been measured at Jordan Creek at Trout Street bridge on three separate occasions since 1984: March 3, 1989, March 5, 1996, and January 1, 1997. The discharge measurement of 0.36 ft3/s made at this site on December 6, 1995 is considered low flow. Same-day stream discharge measurements at six sites were collected nine times within the March 1999 to April 2001 time span. These measurements show Jordan Creek tends to increase in flow from Thunder Mt. Trailer Park (site 2) downstream to Nancy Street (site 5). During extended dry periods, Jordan Creek loses water in a downstream direction from Nancy Street (site 5) to Yandukin Avenue (site 8). Measurements indicate that it may not be uncommon for sites 2, 6, 7 (bridge near Cascade St.), and 8 to have no flow during periods of cold dry weather in the winter months. Similar periods of no flow have been shown to occur downstream of neighboring Duck Creek below Nancy Street (site 10) with a greater frequency than that of Jordan Creek (U.S. Geological Survey, 1997-2002).	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
POA-2008-1413, Jordan Creek	Confined	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
POA-2008-1413, Jordan Creek	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM[7]	Explain
POA-2008-1413, Jordan Creek	X	X	-	-

Tributaries with OHWM[6] - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted\Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
POA-2008-1413, Jordan Creek	X	X	-	-	-	X	-	-	-	-	-	X	X	X	-	-

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:

Tributary Name	MHWM	Survey to Datum	Physical Markings	Vegetation Lines Change in Type
POA-2008-1413, Jordan Creek	X	-	X	-

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality;general watershed characteristics, etc.).

Tributary Name	Explain	Identify specific pollutants, if known
POA-2008-1413, Jordan Creek	The water is typically clear in the headwaters and develops a brownish tint midway to salt	The headwaters of Jordan Creek formerly contained Reid Pond, which formed when precipitation and ground water filled a gravel excavation site. Household debris, junked equipment, appliances, fuel, lubricant containers, overburden, and excess excavation material have been dumped into the site since its inception. The site is now completely backfilled and covered with overburden. A small seep on the fringe of the former pond flows into Jordan Creek. A water sample was collected from this seep on August 4, 1999, by the USGS. In addition to the major ions and nutrients, the sample was analyzed for 85 Volitile Organic Compounds (VOC). An estimated dichlorodifluoromethane

	water.	concentration of 1.68 ¿g/L was the only VOC that was detected at the USGS. Dichlorodifluoromethane, commonly known as Freon 12, is a chlorofluorocarbon that is used as a refrigerant for refrigerators and air conditioning units.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
POA-2008-1413, Jordan Creek	X	The dominant riparian land use for the reach was undeveloped woodlands. Large spruce, alders and devil's club along its banks provide stream canopy cover.	-	-	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish\Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
POA-2008-1413, Jordan Creek	X	-	-	X	Jordan Creek has wild stocks of coho and pink salmon, Dolly Varden, and cutthroat trout.	-	-	-	-

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Not Applicable.

(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:
Not Applicable.

(d) Proximity (Relationship) to TNW:
Not Applicable.

(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Not Applicable.

(iii) Biological Characteristics. Wetland supports:
Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
POA-2008-1413, Jordan Creek	PERENNIAL	Jordan Creeks receive water primarily from rainfall, and secondarily from snowmelt and ground water, depending on the season.

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m²)
POA-2008-1413, Jordan Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	323.74848
Total:		**0**	**323.74848**

3. Non-RPWs that flow directly or indirectly into TNWs:[8]
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters:[9]
Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:[10]
Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based soley on the "Migratory Bird Rule" (MBR):

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

☐ Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:
Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.
Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD
(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	City & Borough of Juneau	Preconstruction Notification Form.
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	Bosworth Botanical Consulting	Preliminary jurisdictional determination
--U.S. Geological Survey map(s).	Juneau B-2	-
--USDA Natural Resources Conservation Service Soil Survey.	Chatham Area, Alaska	Cryohemists, flat lowlands, 0 to 5 percent slopes
--USDA Natural Resources Conservation Service Soil Survey.	Chatham Area, Alaska	Cryods-Cryofluvents complex, alluvial fans, 0 to 35 percent slopes
--National wetlands inventory map(s).	Juneau B-2	-
--State/Local wetland inventory map(s):	Juneau Wetlands Management Plan	C.B.J. Basemap Series Sheet B21
--Photographs	-	-
----Aerial	Google Earth Pro	-
--Applicable/supporting scientific literature	U.S. Geological Survey	Baseline Characteristics of Jordan Creek, Juneau, Alaska
--Applicable/supporting scientific literature	Alaska Department of Fish and Game	Juneau Fish Habitat Assessment
--Applicable/supporting scientific literature	Inter-Fluve, Inc.	Hydrologic and Geomorphic Evaluation & Alternatives Analysis For Stream Rehabilitation for East Valley Reservoir Tributary Alluvial Fan on Jordan Creek, Juneau, Alaska

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.

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[1]-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2]-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3]-Supporting documentation is presented in Section III.F.
[4]-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5]-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6]-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]-Ibid.
[8]-See Footnote #3.
[9] -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10]-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.